

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A radar, comprising:
a transmission section that transmits a transmission wave;
a receiving section that receives, as a received wave, a wave reflected from a target;
a conversion section that converts, into an electric signal level, a time difference existing between a time at which the transmission wave is transmitted and a time at which the received wave is received; and
a computation section that computes a distance to the target on the basis of the electrical signal level output from the conversion section, wherein
a portion of a conversion characteristic of the conversion section having a small time difference is ~~set such~~ defined so that a change in the electrical signal level corresponding to the time difference for the portion of the conversion characteristic having the small time difference becomes larger than ~~the~~ a change in the electrical signal level corresponding to the time difference for a portion of the conversion characteristic of the conversion section having a large time difference.
2. (Original) The radar according to claim 1, wherein
a portion of the conversion characteristic of the conversion section, the portion being larger than a predetermined first time difference, is set such that a change becomes saturated.
3. (Original) The radar according to claim 2, wherein

the first time difference is a time difference corresponding to a distance required to render a determination as to whether or not a safety device provided on a vehicle is to be activated.

4. (Original) The radar according to claim 1, wherein

the conversion section converts, into an electrical signal level, a time difference determined by subtracting a lag time of an electrical circuit including at least one of the transmission section and the receiving section from the time difference between the transmission time at which the transmission wave is transmitted and the receiving time at which the received wave is received.

5. (Original) The radar according to claim 4, wherein

the conversion section determines the lag time from a wraparound component which is received by the receiving section directly from the transmission section.

6. (Previously Presented) A radar, comprising:

a transmission section that transmits a transmission wave;

a receiving section that receives, as a received wave, a wave reflected from a target;

a conversion section that converts into an electrical signal level, a time difference determined by subtracting a lag time of an electrical circuit from a time difference between the transmission time at which the transmission wave is transmitted and a receiving time at which the received wave is received, the electrical circuit including at least one of the transmission section and the receiving section; and

a computation section that computes a distance to the target on the basis of the electrical signal level output from the conversion section.